# The City of Alexandria

# State of Recycling Report

Fiscal Year 2010 July 1, 2009 to June 30, 2010

Department of Transportation & Environmental Services (T&ES)





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Vice Mayor Kerry Donley

## **Council Members**

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## City Manager

James K. Hartmann

#### **Executive Summary**

#### City of Alexandria Recycling Fiscal Year 2010 Summary

There are three ways to increase the City's recycling rate; reducing, reusing and recycling. However, this report focuses on recycling as it is the easiest to measure and quantify. This report provides a summary of recycling activities measured by the City of Alexandria. These measurements included recycling tonnages, participation rates, recycling rates, costs and savings.

#### Fiscal Year 2010 Recycling Overview:

- Reported a 29% recycling rate, an increase of 3% from FY 2009
- Recycled over 50,000 tons of materials
- Earned over \$281,300 in revenue from the sale of recycled materials
- Saved over \$837,500 by recycling materials, instead of paying for disposal
- Spent approximately \$1.6 million dollars on all recycling programs
- Received additional funding for a cart collection system for curbside recycling collection
- Launched the Plastic Bag Recycling Initiative.

#### Fiscal Year 2011 Recycling Outlook:

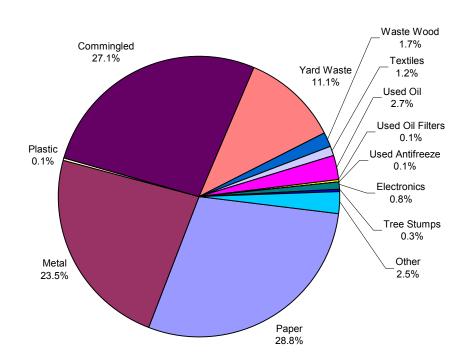
- Staff plans to improve programs to achieve a 32% City-wide recycling rate
  - o Increase yard waste recycling
  - o Implement the curbside residential cart recycling collection system
  - o Increase the number of non-residential and multi-family properties complying with the City's Recycling Code
  - Study implementing further public recycling locations, similar to Market Square
  - Further enhance recycling in City facilities, including additional interior collection containers
- Staff will continue to follow the recycling market trends to maximize revenue.
- The Solid Waste User Fee will increase to \$336 per calendar year for curbside residential solid waste services including trash and recycling collection.
- The Electronics/Household Hazardous Waste Collection Site and Wheeler Avenue Recycling Drop-off Site will move to 3224 Colvin Street.

#### City of Alexandria Recycling Programs - Introduction

The City of Alexandria recycled 50,400 tons of paper, metal, plastic, glass, yard waste, textiles, electronics and food waste during FY 2010. Approximately \$1.6 million dollars was spent to collect, educate and support the City's recycling program. These programs include:

- Residential curbside recycling collection
- City facilities recycling collection
- Drop-off recycling collection centers
- Electronics recycling drop-off collection
- Special event recycling container loan program
- Commercial and multi-family recycling enforcement
- Recycling education, outreach, and marketing efforts

The City reported a 29% City-wide recycling rate to the State of Virginia Department of Environmental Quality. This rate was quantified based on local and regional trash, recycling haulers collection, and processors reporting annual tonnage figures to the City of Alexandria.



FY 2010 Recycled Materials by Percentage

#### Residential Curbside and City Facilities Recycling Collection Program

The City is responsible for collecting approximately 19,400 households and City facilities trash and recycling, which is approximately 1/3 of the population. The City's curbside customers and City facilities are collected by a contracted recycling collection hauler, who is currently AAA Recycling and Trash Removal Service.

All residential curbside customers are assessed by a Solid Waste User Fee located on the Real Estate Tax Assessment bill, which is used to pay for the cost of trash and recycling collection. The Solid Waste User fee for FY 2010 was \$331, which includes curbside trash and recycling collection; metal item collection; fall leaf collection; winter holiday tree collection; and Spring Clean Up services.

#### Curbside Recycling Participation Rate

The curbside residential participation rate is 63%. On any given collection day, approximately 63% of a household will set out recycling for collection. The City hopes to increase the participation rate significantly with the "roll-out" of the new cart collection system.

#### Recycling Cart Collection Containers

In May 2010, the City Council approved funding for the curbside recycling program to move to a cart collection system. Residents can expect to receive their new collection container in late fall 2010. This program will be further discussed in the FY 2011 Outlook section of this document.

#### Yard Waste Recycling

The City provides curbside solid waste customers with annual leaf and holiday tree collection. The City spends approximately \$325,000 on the collection and mulching of leaves and holiday trees each year. Additionally, each spring, the City pays a contractor to mulch holiday trees and leaves, which creates free wood and leaf mulch for residents.

#### City Facilities Recycling Program

During fiscal year 2010, as part of the City's Eco-City Alexandria Initiative the City committed to enhancing recycling at all City facilities by contracting for new services. All City-owned facilities now have recycling collection. Further, the Solid Waste Division purchased permanent interior recycling collection containers at five locations, including the: Lee Center, Black History Museum; and the Health Department. Lastly, 20 City facilities collected City generated rechargeable batteries for recycling through the Call2Recycle program (<a href="www.call2recycle.org">www.call2recycle.org</a>). Staff will report about the success of this free battery recycling program at the end of FY 2011.

#### Recycling Tons Collected

The City's residential curbside and City facilities recycling rate is approximately 32.8%. The amount of recyclables collected was up 3.2% from FY 2009. Materials collected include:

- 24,264 tons of trash
- 6,141 tons of paper items, metal, plastic, and glass food and beverage containers
- 5,600 tons of leaves and Christmas trees
- 21 tons of electronics from Spring Clean Up
- 147 tons of appliances and other large metal items

#### Disposal Costs, Revenues & Cost Savings

Recycling is a key component of the City's solid waste management system that not only conserves valuable natural resources, but also helps defray the cost of waste disposal. In FY 2010, the City spent nearly \$2 million dollars on trash disposal at the Covanta Energy-from-Waste. The City collected over 24,200 tons of trash from curbside customers and City facilities, down 7.75% from the year before. The curbside recycling program saves money by avoiding disposal costs and earning commodity sales annually.

The City earned approximately \$225,400 in revenues from the sale of recyclable materials, including the following:

- \$209,400 from the sale of curbside and City facility recyclables
- \$16,000 from the sale of metal from curbside large metal collection

Furthermore, the City saved over \$837,500 by avoiding the disposal cost and recycling over 11,000 tons of materials through curbside recycling programs, including the following:

- \$479,000 by recycling 6,141 tons of paper and metal, glass, plastic containers
- \$345,400 by recycling 5,600 tons of leaves and holiday trees
- \$11,500 by recycling 147 tons of large metal items
- \$1,600 by recycling 21 tons of electronics collected at the curb during Spring Clean up.

#### **Drop-off Recycling Collection Program**

The City operates 4 drop-off recycling collection centers. These centers are located at:

- Jones' Point, at the end of South Royal Street
- 4251 Eisenhower Avenue
- S. Whiting Street, at the end S. Whiting Street, intersecting with Tower Court
- 3540 Wheeler Avenue (Moving to Colvin Street in summer of 2010).

All locations accept the following materials:

- Mixed paper, including newspaper, phone books, junk mail, paperboard (i.e. cereal, cracker and tissue boxes), color/white paper, post-its, etc.
- Cardboard (must be flattened with no plastic wrap or Styrofoam)
- All plastic bottles and jugs
- Glass bottles and jars
- Metal food and beverage containers

In FY 2010, the City collected and sold 803.5 tons of mixed paper/cardboard and 122.7 tons of plastic, glass, and metal containers. The City earned \$55,900 in revenue from these materials.





Eisenhower Avenue Drop-off Recycling Site



### **Electronics Drop-off Recycling Collection Program**

All City residents are eligible to use the Household Hazardous Waste and Electronics Recycling Drop-off Center. The Electronics Drop-Off and Recycling Collection program includes the recycling of electronic materials, as well as, household hazardous waste drop-off collection. This facility is located at 3540 Wheeler Avenue and is open Monday and Saturday (except holidays) from 7:30 a.m. to 3:30 p.m. This facility along with the Household Hazardous Waste Collection Site and the Wheeler Avenue Drop-off Recycling Collection Site will be moving to Colvin Street.

During FY 2010, the City collected:

- 40.4 tons of televisions
- 18.9 tons of computer monitors
- 11.6 tons of pounds of CPU's
- 28 tons of pounds of miscellaneous/peripheral components

The electronics drop-off recycling collection program cost the City \$34,000 for collecting and recycling electronic materials. The majority of this cost is for the safe removal and recycling of Cathode Ray Tubes (CRT's) from televisions and computer monitors.



City Household Hazardous & Electronics Collection site – 3540 Wheeler Avenue



Computers & TV's to be recycled

#### **Special Events Recycling Container Loan Program**

The City created the Special Events Recycling Container Loan Program to increase recycling at private and public events. The program has 47 Clearstream recycling containers available for residents and organizations to borrow, in order to collect recycling at special events. This program aims to increase the collection of bottles, cans, and cardboard, when applicable, at various events throughout the City. Not only does this program provide loan recycling containers to residents, businesses, and organizations, but it also provides comprehensive information about reducing waste at events and efforts to increase recycling throughout the year.

During FY 2010, the City loaned out containers to 15 events and collected over 6,000 pounds of bottles, cans, and cardboard.



Chirilagua Festival 2010



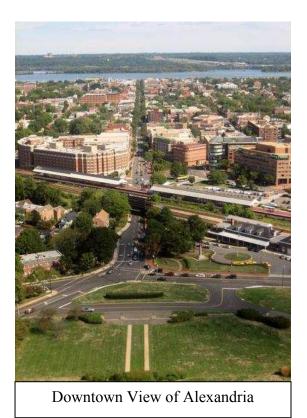
Bottles & Cans collected – Chirilagua Festival

#### Non-residential and Multi-family Recycling Enforcement and Education Program

As part of the Eco-City Alexandria Initiative, the Eco-City Action Plan sets a goal for the City of Alexandria to exceed a 35% waste diversion rate by the year 2020. More than 70% of trash produced in the City is generated by the Commercial sector. It is essential for the business community to engage in recycling efforts, in order to achieve this goal. The City of Alexandria has adopted a commercial recycling ordinance that requires all commercial business and multi-family residential properties to implement recycling programs. Commercial businesses are now required to recycle the two dominant recyclable commodities in the waste stream. Multi-Family properties are required to recycle mixed paper, commingled cans, bottles, and cardboard. All commercial properties must submit a Recycling Implementation Plan (RIP) Form to document their recycling program to the City.

In 2009, the City introduced a new internet based system for submitting RIP forms online that dramatically simplifies the RIP form process and eliminates the need to process paper forms. The convenience of this new system has already produced a significant increase in the number of RIP forms submitted for approval. There are currently over 1200 RIP forms submitted for FY 2010. This system saves the City a considerable amount of money in administration and document management expenses, while improving the ability to manage the Commercial Recycling Program and providing additional assistance to businesses.

The commercial and multi-family sector recycled about 25% of all generated waste. This included approximately 38,700 tons of bottles, cans, paper, cardboard and organics during FY 2010.



#### **Recycling Education and Outreach**

#### Plastic Bag Recycling Initiative

In September 2009, the City launched the Plastic Bag Recycling Initiative. This educational Initiative focused on the environmental importance of reducing, reusing and recycling plastic bags. The City educated Alexandrians through different mediums, such as public service announcements, public flyers, direct mailings, special events and online resources: (<a href="www.AlexandriaVA.gov/PlasticBags">www.AlexandriaVA.gov/PlasticBags</a>). This initiative allowed the City to partner with various local businesses, in order to engage various stakeholders that live and work in Alexandria.

Results from the Plastic Bag Initiative Education and Outreach Campaign

- Print Advertising: posters placed on all DASH buses and at local retail stores. Total of 100 locations; DASH ridership is approximately 14,000 per week.
- Direct Mailing: mailed to 19,500 residents and handed out at local events
- Advertisement: Donated space by Alexandria Times in 10 number of editions
- Public Service Announcement (PSA):
  - Averaged 236 spots per month for 8 months aired on Comcast television (1888 total)
  - The average Comcast customer would have seen the ad 4 times over the last eight months.
  - o On average approximately 67,000 residents could have seen the spot.
- Total Amount of Plastic Bags collected and recycled, as part of the initiative

Date	Event	Gallons	Weight (lbs)
9/21/2009	Kick Off	386	64
10/3/2009	Art on the Avenue	95	15
	West End Farmers		
10/25/2009	Market	150	25
11/15/2009	Whole Foods Event	95	15
4/10/2010	Schools Competition	29056	4823
4/17/2010	Del Ray Farmers Market	285	47
4/24/2010	Earth Day	95	16
	West End Farmers		
5/2/2010	Market	150	25
	Total	30312	5030

• The City gave away over 3,000 reusable bags as part of the initiative.

#### Other Recycling Education and Outreach

The Solid Waste Division is committed to informing residents through various mediums about the City's recycling programs. Staff continually updates the Solid Waste Division website (<a href="www.AlexandriaVA.gov/Solidwaste">www.AlexandriaVA.gov/Solidwaste</a>). Additionally, the Solid Waste Division encourages residents to sign up for the Solid Waste eNews, which is sent out monthly to inform residents about recycling information. Most recently, Solid Waste staff worked with TC Williams video students to create a Composting 101, How to Video for the Solid

Waste Division website and to broadcast on the City of Alexandria's government access channel 70

#### Fiscal Year 2011 Outlook

In FY 2011, there will be budgetary constraints, as well as a demand for improved recycling services. The City is working to increase the recycling rate to 32% through various program improvements. The Solid Waste User Fee for FY 2011 will be \$336, a \$5 increase.

Curbside Recycling Collection Programs

Staff would like to recommend the following new programs for FY 2011:

- Curbside Recycling Cart Collection Program: over 60% of the average residents' trash is recyclable through a curbside recycling program. In order to increase ease and convenience of setting out recycling, and to reduce litter, the curbside recycling program will initiate a cart recycling program.
  - o Carts will be delivered to curbside recycling customers in late fall with an introductory letter and a new Yes/No Recycling flyer.
  - o Carts will be assigned to each address based on dwelling type.
  - Residents will be able to upgrade to a larger container, and in the case of space constraints, downgrade (after cart delivery period is complete).
  - o The Radio Frequency Identification Tags in the carts will be assigned by block and street name.
- Curbside Recycling Rewards Program: staff is researching various recycling rewards programs and may recommend one for FY 12. Such programs award points to residents based on participation and total weight collected by the City each month. These points could then be used for coupons and discounts at local, regional, and national stores. Residents could earn as much as \$300 a year is discounts and coupons. The estimated cost of this program is \$140,000 per year or approximately \$7 per resident per year. The program's goal is to increase participation and tonnage in the curbside recycling program, as well as, incentivize recycling. Similar programs exist in Fairfax County, VA; Wilmington, DE; and 36 other cities throughout the country.
- Yard Waste Recycling Program: yard waste can make up more than 20% of the average homeowner's trash. Currently, only leaves during fall Leaf Season and Christmas trees are being recycled. The rest of the curbside yard waste is sent to Covanta and burned for energy. However, the "green" yard waste increases the nitrogen output at Covanta, which is not good for the air. The Solid Waste Division promotes grasscycling and backyard composting but staff recommends piloting a yard waste recycling collection program to deal with excess yard waste. Not only would a yard waste recycling program save the City money is disposal cost but would increase the City's recycling rate. The estimated cost of an entire yard waste program is approximately \$500,000 with potential disposal savings of \$100,000 to \$400,000.

#### Educational and Outreach Programs

- Solid Waste Division Brochure: to provide better residential education about City solid waste services, staff is working with a graphic design intern to create a new and improved Solid Waste Guide to Services brochure. The brochure will be limitedly printed to save resources and trees. Residents will be able to request a brochure, while staff will try to target new residents specifically.
- Additional Outreach: Staff will also be attending additional public events, such as farmers markets and civic association meetings. Staff will provide residents with information about the cart collection program, as well as, available recycling programs. Further, additional recycling information will be posted on social media outlets, the recycling web pages, and Channel 70.

#### City Facility Recycling Collection Programs

- Rechargeable Battery Recycling Program: The Solid Waste Division will continue to work with City facilities to ensure all City generated rechargeable batteries are recycled.
- Interior Recycling Collection Containers: To increase recycling collected from City facilities, the Solid Waste Division will continue to work with other departments to improve interior recycling collection containers.

#### Public Recycling Programs

- **Recycling at Parks:** The Solid Waste Division will study the possibility of piloting recycling collection at City parks or athletic fields.
- **Recycling at Special Events:** Staff will continue to encourage recycling at special events, with a goal of having recycling at all events in the City.

#### Multi-family and Commercial Recycling Programs

- Business Recycling Partnership: The Commercial Recycling Program will also renew its Business Recycling Partnership program for FY 2011 by recognizing businesses with outstanding recycling programs. A new Business Recycling Partner will be selected and highlighted each month on the City's Recycling web page. The goal is to encourage other businesses to improve or expand their recycling efforts by promoting successful recycling programs at all types of commercial properties.
- Recycling Expos and Outreach: On September 28, 2010 the Solid Waste Division will begin its outreach program at the Eco-Friendly Restaurant Expo to be held at the Lee Center in Alexandria. Roundtable discussions and presentations will provide restaurant managers with ideas to improve their solid waste and recycling systems.